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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/800,796

03/15/2004

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ODONNELL.7374

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7590

01/11/2012

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EXAMINER

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ART UNIT

PAPER NUMBER

3754

MAIL DATE

DELIVERY MODE

01/11/2012

PAPER

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte MARK G. O'DONNELL and MILES C. O'DONNELL

Appeal 2009-014263
Application 10/800,796
Technology Center 3700

Before JOHN C. KERINS, STEFAN STAICOVICI, and
JAMES P. CALVE, *Administrative Patent Judges*.

STAICOVICI, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Mark G. O'Donnell and Miles C. O'Donnell (Appellants) appeal under 35 U.S.C. § 134 from the Examiner's decision to reject under 35 U.S.C. § 103(a) claims 37, 38, 40-43, 46 and 50-53 as unpatentable over Knight (US 1,435,311, issued Nov. 14, 1922), claim 39 as unpatentable over Knight and DeCamp (US 4,181,157 issued Jan. 1, 1980), claims 44 and 45 as unpatentable over Knight and Conaghan (US 4,929,478 issued May 29, 1990), and claims 47-49 as unpatentable over Knight and Whittington (US 3,762,982, issued Oct. 2, 1973). Appellants present additional evidence in the Declarations filed under 37 C.F.R. § 1.132 of Richard F. Grossman, PhD, filed Feb. 10, 2006,¹ and Mark O'Donnell,² filed Jan. 27, 2005,³ and Apr. 12, 2006,⁴ respectively. Claims 1-36 have been canceled. We have jurisdiction over this appeal under 35 U.S.C. § 6.

THE INVENTION

Appellants' invention relates to devices and a method for protecting a rope or webbing during use. Spec. 2, ll. 7-8 and figs. 1 and 4.

Claims 37 and 52 are representative of the claimed invention and read as follows:

37. A protector for protecting an elongated portion of a rope or webbing, said protector including a protector length and said elongated portion of the rope or webbing including a protected length that is substantially the same as the protector length, said

¹ Hereafter the "Grossman Declaration."

² The Declarant, Mr. Mark G. O'Donnell, is also a co-inventor in the instant application.

³ Hereafter the "First O'Donnell Declaration."

⁴ Hereafter the "Second O'Donnell Declaration."

protector comprising a flexible single layer of abrasion resistant material formed to have memory in a spiral shape, said protector memory producing a small constricting force that provides a snug fit around the rope or webbing along the full length of the protector with sufficient gripping force as to inhibit slippage along the length of the rope or webbing when no external force is applied to the protector, and to resist being unwrapped when slid sideways along a rough, hard surface in a direction transverse to the length of the spiral; said protector, in use, having a plurality of overlapping wraps around said rope or webbing such that when expanded over the rope or webbing there will still exist sufficient overlap of the spiral to completely envelope and protect the rope or webbing from abrasion damage when a force greater than the constricting force caused by sliding actions opens an edge of an outer overlapping wrap.

52. A method of protecting a protected length of a rope or protector, said method comprising the steps of:

- providing a flexible single layer of abrasion resistant material formed to have memory in a spiral shape and having a protector length that is substantially the same as the protected length of the rope or webbing;

- constricting said protector around the rope or webbing with a small constricting force applied by the spiral shape to achieve a snug fit around the rope or webbing along the full length of the protector with sufficient gripping force as to inhibit slippage along the length of the rope or webbing when no external force is applied to the protector;

- resisting the protector from being unwrapped when slid sideways along a rough, hard surface in a direction transverse to the length of the spiral by the constricting force; and

- permitting an inner spiral portion of the protector to be exposed when a force greater than the constricting force is applied in the direction transverse to the length of the spiral due to the protector including a plurality of overlapping wraps around the rope or webbing such that when expanded over the rope or webbing there will still exist sufficient overlap of the spiral to completely envelope and protect the rope or webbing

from abrasion damage when the force greater than the constricting force causes an edge of an outer overlapping wrap to be opened.

SUMMARY OF DECISION

We AFFIRM.

OPINION

The obviousness rejection over Knight

Appellants present the same arguments with respect to the rejection of independent claims 37, 50 and 52 under 35 U.S.C. § 103(a) as unpatentable over Knight.⁵ See App. Br. 6-10. As such, the following analysis applies equally to independent claims 37, 50 and 52.

Each of independent claims 37, 50 and 52 requires a protector including “a flexible single layer of abrasion resistant material formed to have memory in a spiral shape,” wherein the memory produces a constricting force that provides a snug fit around the rope or webbing along the full length of the protector. App. Br., Claims Appendix. The Examiner found that Knight discloses a jacket (protector) of a flexible single layer of abrasion resistant material (i.e., rubber or similar elastomeric material), having edges that possess a strong, inherent, inwardly coiling or rolling tendency (i.e., memory), and a gripping tendency (i.e., constricting force),

⁵ With respect to Appellants’ arguments on pages 10-13 of the Appeal Brief, Appellants merely reiterate the claim limitations of independent claims 37, 50 and 52 and do not present separate arguments for patentability of these claims. See 37 C.F.R. § 41.37(c)(1)(vii). (“A statement which merely points out what a claim recites will not be considered an argument for separate patentability of the claim”).

which allows the jacket (protector) to accommodate itself to cores of different diameters. Ans. 3-4. *See also*, Knight, col. 1, ll. 9-19 and fig. 3.

Appellants argue that based on evidence presented in the Grossman Declaration, Knight is non-enabled, because Knight fails to disclose “how a protector product of the invention may be made.” App. Br. 6. According to Appellants, if the tubular rubber or rubber compound device were split longitudinally, as disclosed in Knight, it would largely maintain its shape and would not provide an “inherent coiling or rolling action” (i.e., have memory), as suggested by Knight, because “no forces have been introduced to the device [of Knight] to cause the material to coil.” App. Br. 7. *See also* Grossman Declaration, ¶¶ 6-7. As such, according to Appellants, the tubular rubber or rubber compound device of Knight would not have a memory that produces a constricting force that provides a snug fit around the rope or webbing along the full length of the protector, as required by the claims. App. Br. 8. *See also* Grossman Declaration, ¶¶ 9-10. We disagree with Appellants’ arguments for the following reasons.

When the reference relied on expressly anticipates or makes obvious all of the elements of the claimed invention, the reference is presumed to be enabled. *See In re Sasse*, 629 F.2d 675, 681 (CCPA 1980). Once such a reference is found, the burden is on applicant to provide facts rebutting the presumption of enablement. *Id.* In order to demonstrate that a reference is not operable, the test is whether the reference provides an enabling disclosure of the particular subject matter at issue. *See Elan Pharm., Inc. v. Mayo Found. for Med. Educ. and Rsrch*, 346 F.3d 1051, 1054 (Fed. Cir. 2003) (The disclosure in an assertedly anticipating reference must provide an enabling disclosure of the desired subject matter; mere naming or description of the subject matter is insufficient, if it cannot be produced

without undue experimentation). Moreover, a reference need not describe every detail to make the invention operate. *See In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995) (“The person of ordinary skill in the art is a hypothetical person who is presumed to know the relevant prior art.”); *Hybritech, Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 1384 (Fed. Cir. 1986) (“a patent need not teach, and preferably omits, what is well known in the art.” (citing *Lindemann Maschinenfabrik GMBH v. Am. Hoist & Derrick*, 730 F.2d 1452, 1463 (Fed. Cir. 1984))).

In this case, Knight is presumed to enable one of ordinary skill in the art to make the described tubular jacket (protector) with a rubber or rubber compound. Knight specifically discloses that the jacket (protector), constructed of rubber or rubber compound, is molded into a tubular shape and split longitudinally (at 10), and that edges 11, 13 of the tubular jacket (protector) (1) possess a strong, inherent, inwardly coiling or rolling tendency (i.e., have memory); and (2) are drawn apart to unfold the tubular jacket (protector) lengthwise permitting the tubular jacket (protector) to be readily passed onto a core 12 and, upon being released, edges 11, 13 of the tubular jacket (protector) instantly contract (i.e., have memory) and fit tightly and hug the core gripping the tube to hold the jacket firmly in any set position thereon (i.e., the memory produces a constricting force that provides a snug fit around the rope or webbing along the full length of the protector). *See Knight*, col. 1, ll. 9-19 and col. 2 ll. 68-87 and figs. 1 and 2.

Furthermore, given that (1) Appellants’ Specification specifically discloses that the protector can be formed by a variety of materials, including rubber, wherein “[t]he material should have excellent memory in certain embodiments such that when twisted, expanded, or distorted it will substantially, if not completely, return to its original configuration when left

in a free state.” (*See Spec. 6, ll. 7-12*); and (2) it is well known in the material sciences that rubber has considerable elastic memory, the presumption is that one of ordinary skill in the art would know how to make such a tubular jacket (protector) using rubber or rubber compound. *See Sasse*, 629 F.2d at 681. Appellants have not provided any persuasive evidence or further explanation as to why one of ordinary skill in the art would not be able to make a tubular jacket (protector) from rubber or rubber compound as described in Knight without undue experimentation. *See Elan Pharm.*, 346 F.3d at 1054.

The Grossman Declaration

Regarding the Grossman Declaration, Appellants have not provided a factual basis for Dr. Grossman’s knowledge that (1) “a material that is formed as disclosed in the Knight reference would not achieve the ‘inherent coiling or rolling action.’” *See Grossman Declaration*, ¶ 6; or (2) “no forces have been introduced to the device [of Knight] to cause the material to coil.” *See Grossman Declaration*, ¶ 7. It is not unreasonable, in considering the enablement of a patent, to require some searching of the literature to establish the state of the art and the level of skill in the art rather than just relying on unspecified personal knowledge. While Dr. Grossman is certainly entitled to give his opinion without stating the underlying facts or data, such opinions are not entitled to as much weight as factually supported statements. Moreover, Dr. Grossman acknowledges that a tubular rubber or rubber compound material that is longitudinally split “would largely maintain its shape,” (*see Grossman Declaration*, ¶ 7), which is the same concept disclosed in Knight. In other words, Knight forms the jacket in a coiled configuration (rather than as a tube) so that when the coiled jacket is

unwound, release of the drawn apart edges 11, 13 of the tubular jacket (protector) (*see* fig. 2 of Knight) would result in the tubular jacket (protector) resuming its coiled shape (i.e., the tubular jacket (protector) would maintain its coiled shape). *See* Knight, col. 2, ll. 81-87 and fig. 2.

As such, Appellants have not met their burden of establishing that Knight does not enable one of ordinary skill in the art to make a tubular jacket (protector) from rubber or rubber compound. Accordingly, based on the totality of the evidence, including the Grossman Declaration, we are not persuaded that Knight is non-enabling prior art for teaching a rubber tubular jacket (protector).

Hence, we agree with the Examiner's position that how the protector device of Knight is formed is not an issue, as the claims of Appellants' invention are not drawn to a method of manufacturing the protector, but instead are drawn to the protector itself (similar to the claims of Knight) and a method of protecting an elongated device, i.e., a rope. Ans. 8. Consequently, we further agree with the Examiner that Knight discloses "a self-coiling rubber sheet that may be pulled opened to provide access to its inside and allow a circular, elongated device, like a rope therein to be protected." *Id.*

The O'Donnell Declarations

Appellants also argue that evidence of long-felt need and commercial success represent evidence of non-obviousness. App. Br. 8-10. As such, we now consider anew the issue of obviousness, carefully evaluating and weighing both the evidence relied upon by the Examiner, and the objective evidence of non-obviousness provided by Appellants. In particular, we consider the evidence set forth in the First and the Second O'Donnell

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Declarations as they pertain to the obviousness of the subject matter of independent claims 37, 50 and 52.

First O'Donnell Declaration

Long-felt Need

Appellants argue that the need has existed for protector devices of the subject invention for a considerable period of time. App. Br. 8. The relevance of long-felt need and the failure of others to the issue of obviousness depends on several factors. First, the need must have been a persistent one that was recognized by those of ordinary skill in the art. *See Orthopedic Equipment Co. v. All Orthopedic Appliances, Inc.*, 707 F.2d 1376 (Fed. Cir. 1983); *see also In re Gershon*, 372 F.2d 535, 539 (CCPA 1967). Second, the long-felt need must not have been satisfied by another before the invention by applicant. *See Newell Companies v. Kenney Mfg. Co.*, 864 F.2d 757, 768 (Fed. Cir. 1988) (“[O]nce another supplied the key element, there was no long-felt need or, indeed, a problem to be solved”.) Third, the invention must in fact satisfy the long-felt need. *See In re Cavanagh*, 436 F.2d 491 (CCPA 1971).

In this case, we fail to find sufficient evidence in the First O'Donnell Declaration to support Appellants' position that a long-felt need for rope protector devices has existed for “a considerable period of time”. App. Br. 8. The First O'Donnell Declaration merely indicates that prior to the commercial introduction of rope protector devices in accordance with embodiments of the subject invention, ropes were either unprotected at stress or abrasion points, or were protected (1) by complex enclosing protectors; or (2) by placing an article under the rope at the abrasion point, which does not by itself lead to the conclusion that a long-felt need for rope protector

devices has existed for “a considerable period of time.” *See* First O’Donnell Declaration, ¶ 6. *See also* App. Br. 8. As noted above, the long-felt need must have been a persistent one that was recognized by those of ordinary skill in the art.

Further, Appellants have proffered no evidence that others in the industry had made attempts to solve the articulated problem and failed. The First O’Donnell Declaration merely states that “[rope] protectors had existed in the market” prior to the commercial introduction of rope protector devices in accordance with embodiments of the subject invention. *See* First O’Donnell Declaration, ¶ 10. As such, like the Examiner, we find that declarant does not offer any objective evidence to support that others had attempted to solve this problem. Ans. 9. Therefore, the evidence of long-felt need is not sufficient to show the efforts and/or resources expended by others to solve the problem.

First and Second O’Donnell Declarations

Commercial Success

Commercial success is relevant in the obviousness context only if it is established that the sales were a direct result of the unique characteristics of the claimed invention, as opposed to other economic and commercial factors unrelated to the quality of the claimed subject matter. In other words, a nexus is required between the sales and the merits of the claimed invention. *In re Huang*, 100 F.3d 135, 139-40 (Fed. Cir. 1996).

Appellants offer as evidence the sale of an increasing number of rope protectors as a result of “the product being able to be easily applied to and positioned on a rope (without requiring a fixed attachment), yet provide

sufficient protection through the use of wrapping the protector around the rope with sufficient overlap to provide an underlying abrasion resistant surface under the exposed abrasion resistant outer surface.” See First O’Donnell Declaration, ¶ 11 and Second O’Donnell Declaration, ¶¶ 2-3 and chart p. 4. See also App. Br. 8-9. However, like the Examiner, we find that these statements provide very little evidence of a nexus to Appellants’ claimed device, because Appellants have offered insufficient facts to show that these improvements are due to the nature of the claimed invention, as opposed to other economic and commercial factors unrelated to the technical quality of the claimed subject matter. Ans. 10. For example, as pointed out by the Examiner, the sale of an increasing number of rope protectors “may be the result of heavy promotion or advertising, a shift in advertising, preferential exposure in the marketplace, discounts for promotional purposes, fancy packaging, or other business events extraneous to the merits of the claimed invention.” *Id.* In addition, unit sales figures are weak evidence of commercial success. See *Huang*, 100 F.3d at 139-40 (without evidence that sales are a substantial quantity in the relevant market, “bare sales numbers” are a “weak showing” of commercial success); *In re Baxter Travenol Labs.*, 952 F.2d 388, 392 (Fed. Cir. 1991) (“[I]nformation solely on numbers of units sold is insufficient to establish commercial success.”).

After reviewing all of the evidence before us, including the totality of Appellants’ evidence, it is our conclusion that, on balance, the evidence of obviousness discussed above outweighs the evidence of nonobviousness submitted by Appellants and, accordingly, the subject matter of claims 37, 50 and 52 would have been obvious to one of ordinary skill in the art within the meaning of 35 U.S.C. § 103(a) at the time Appellants’ invention was made.

In conclusion, for the foregoing reasons, the rejection of independent claims 37, 50 and 52 under 35 U.S.C. § 103(a) as unpatentable over Knight is sustained. Appellants do not separately argue dependent claims 38, 40-43, 46, 51 and 53. App. Br. 11-13. As such, we likewise sustain the rejection of claims 38, 40-43, 46, 51 and 53 as unpatentable over Knight.

The obviousness rejections over Knight and any one of Decamp, Conaghan and Whittington

Regarding the rejection of claim 39 over Knight and DeCamp, the rejection of claims 44 and 45 over Knight and Conaghan, and the rejection of claims 47-49 over Knight and Whittington, Appellants do not present any additional substantive arguments separate from those presented above (*see* App. Br. 11-13). Accordingly, the rejection of claim 39 over Knight and DeCamp, the rejection of claims 44 and 45 over Knight and Conaghan, and the rejection of claims 47-49 over Knight and Whittington are also sustained.

DECISION

The Examiner's decision to reject claims 37-53 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

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